

CHM 100 UNIT 8 NOTES: GAS LAWS  
SUGGESTED READING: CRACOLICE/PETERS - CHAPTERS 4, 14  
WORK ON PRACTICE PROBLEMS

OBJECTIVES FOR UNIT 8  
GASES

CHARACTERISTICS OF GASES

ASSOCIATIONS WITH GASES:

1. PRESSURE (P)
2. TEMPERATURE\_(T)
3. AMOUNT OF SUBSTANCE\_(n)
4. VOLUME\_(V)

STANDARD TEMPERATURE AND PRESSURE (STP)

GAS LAWS

CHARLES LAW

BOYLE'S

GAY-LUSSAC'S LAW

COMBINED GAS LAW

$$\frac{P_1 V_1}{T_1} = \frac{P_2 V_2}{T_2}$$

AVOGADRO'S LAW

THE IDEAL GAS LAW

$$PV = nRT$$

MOLECULAR MASS CALCULATIONS

DENSITY CALCULATIONS

GAS STOICHIOMETRY